User Manual

AC200

Version： 1.0

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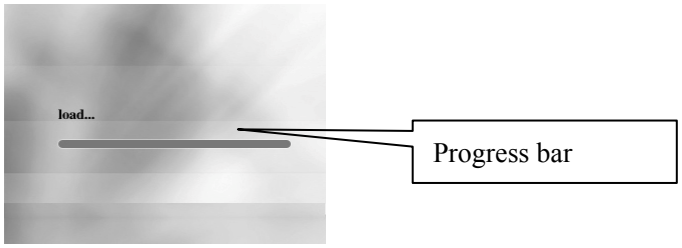
1 Introduction

1.1 Compiling intention

Instruction for users

2 Start-up

When to start up, display firm LOGO and progress bar, collocate LOGO freely, enter original interface after start up, such as:



3. The initial interface

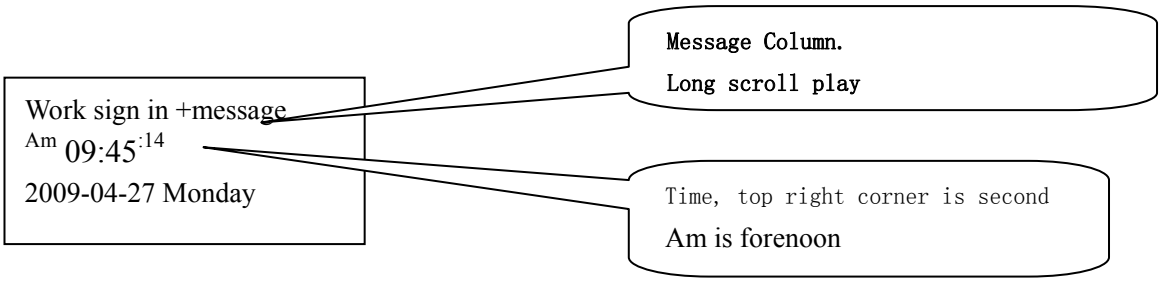
After device links with power supply, the screen shows the first interface we call the initial interface, see figure,
the basic information is as follows:

Explanation: 1.The first column-shows message notification, from right to left, ceaseless scroll play

2. The second and third columns- show time, top right corner show seconds, lower right corner is the type for signing in

3. Lower left corner of the fourth column is the date, lower right corner is the week

Below the initial interface:



1. Press MENU key to enter into the menu
2. Press the number keys + OK is the serial number,

If the authentication mode is ID + password, it prompts “enter a password”,

If the authentication mode is ID + fingerprint, it prompts “press finger”,

3. Pressing finger or swiping card is generally direct verification

Please refer to the specific verification process for the verification process

4. Structure and module of Application

Menu list

The first level menu	The second level menu	The third level menu	The fourth level menu
User management	User registration		
	Administrator registration	Fingerprint, card	
	Login of Super administrator		
	Delete registered record		
Device settings			clock settings
			Language settings
		Basic settings	Voice prompts
			Volume mediation
			Keypad tone
			ratio
			Delete all records
	System settings		Delete all registered datum
			Restore the factory settings
		Expert settings	Firmware upgrade
			Function key settings
			Total numbers of managers
			Password of super manager
			Sensitivity adjuster
		Time starting up	
		Time power off	
		Time dormancy	
	Power supply management	Belling settings	Beginning and end of belling time
		Free time settings	power off
			dormancy
		Timing state transition	

	Communication settings	Machine number	
		Baud rate	
		Ethernet network	Dynamic IP allocation
			IP address
			Subnet mask
			Gateway address
		RS232	
		RS485	
		Connection password	
		Back-stage address	
	Recording settings	Management recording alarm (alarm)	
		Checking recording alarm (alarm)	
		repeat affirmed time	
	Automatic detection	Run all testing	
		Memory testing	
		LCD function testing	
		Sound testing	
		Fingerprint Collector testing	
		Keyboard testing	
		Real-time clock	
Access Control settings	Time sect settings		
	Grouping function settings	Group combination mode	
	Grouping validating mode		
	User access control settings	Use time group	
		Validation mode of time group	
		Other validation modes	
	basic settings of unlocking combination lock drive time		
	Time delay of door contact		
	Door contact switch settings		
	duress alarm settings	duress fingerprint management	
		Password inspection alarm	

		Key-press help
		Alarm delay settings
	Wrong press alarm	
	Group validation mode	
	back function settings	
	Binding ID	
	Download checking records	
	Download management records	
U disk management	Download user information	
	Upload user message	
	Upload message notification	
	Upload mp3	
Alarm reset		
System information	registered user number	
	registered fingerprint number	
	Checking record number	
	Management record number	
	Used memory	
		Registered user number
		Registered fingerprint number
	Residual capacity	Checking record number
		Management record number
		Residual memory
	Device Information	Fingerprint capacity
		Recording capacity
		Management recording capacity
		Memory capacity
		Standby time
		Serial number
		Manufacturer
		Device name

		Device model
		Arithmetic version
		Firmware version
Query and pivot	Checking recording query	
	Management recording query	
	User registration	
	Inquiries	

Press MENU key, the following “help column” prompts" administrator, Please verify..."

Administrator, Please verify...
Am 09:45:14
2009-04-27 Monday

At this time, administrator can be passed through pressing fingerprints, inputting ID and password or swiping card to enter the menu, such as authentication, only proved to be successful can enter the main menu.
See **“**8 validation process ”for verification process

1 After enter into menu, here is default focus menu, each layer of focus is the first menu.
2 “up and down arrows” may move focus to corresponding icon, “ OK key” or “right key” may enter into corresponding sub-menu
3 “up and down arrows” of all menus are curving, it means when arrives at the last menu, press it again shall back to the first menu, if arrives at the first menu, press it again shall back to the last menu
4 Each menu has a number, enter this sub menu directly by pressing corresponding numerical key
5 if there are other menus below the fourth column of menu, it shall use ↓ to prompt, otherwise use ↑ to prompt
6 “ESC” or “left key” may back to the previous menu, ESC key of primary menu may back to the initial interface
7 Press MENU key may back to the primary interface in any case of menu state. Enter into primary menu in other primary interface state
Start input method editor in other states.

1. User management
2. Device settings
3. Access Control settings
4. U disk management

There are 7 menus
1. User management
2. Device settings
3. Access Control settings
4. U disk management
5. Alarm reset（this option displayed only occur alarm events）
6. System information

7. Query and pivot

4.1 user management

4.1.1 User Registration

1. user registration
2. administrator registration
3. super administrator registration
4. delete registration records

Explanation:

1、The user: Refer to the general user, namely person who needs to verify identity because of some purpose, such as person who opens the door through the device, or only those who check on work attendance.

2、The administrator: Operates all other work in addition to carry out advanced settings, registration or delete operation of administrators at the same level, can maintain their own data

3、Super-administrator: Carry out all other operations. After leaving factory, Equipment default with a super administrator (code as "00000", password is "888888") can enter the menu for all operations. Password can be modified, but not to be deleted.

4、The equipment only register the intermediate user, the general manager may exercise any authority of the super administrator

5、The same ID number can register up to 10 different fingerprints, fingerprint ID from 0 to start, followed by increments, it can also be entered manually

6、After entering the registration menu and before the real pre-registration, indicating the default ID (the last No. automatically add 1), at this point, can enter a custom ID. (1-65535 5-bit)

7、Register fingerprint three times is successful. In accordance with the message (voice and text), press the same finger (enter the password twice) three times continuously. If it fails, indicating a failure, and prompts re-registration.

8、Choose ID card or Mifare card in accordance with the device configuration,

9、When register fingerprint or RF card, as there have such fingerprint or card number in the system, the system will refuse to register, suggesting that "repeat fingerprint" or "duplicate cards"

Basic Information dialog box:

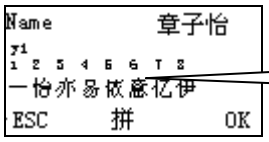
Once choose the user registration, can enter the following dialog box

User registration
Login Number 00001

ESC OK

1. Here the default number: the last number+1 automatically, name is empty, require 6 digits, default empty
2. If cancel, back to the previous level , OK may enter into the next level
3. If it is a new registration, orient this user by range numbers, then modify name, password, user level, department, card, photo, original sound or fingerprint backup.

Then input user’s name:



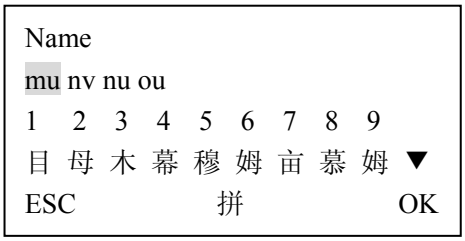
Input method editor state
spelling：Pinyin
abc：Lower case
ABC： Capitalization
number：Figure

1. if the number exists, it prompts " change name" , process the input meth

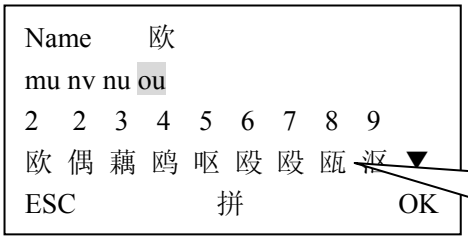
Input Method Editor

Press MENU key to start Input Method Editor in relation to input, then press MENU key to switch input methods including Pinyin, lowercase letters, uppercase letters, digital, clock input format.

F4 may back at this time. It may delete all after a long press.



Appear this chart after pressing figure key 6 and 8
Here select Bopomofo combinations by pressing left and right direction keys



Use Up and down arrow keys to flip Chinese characters, directly select the appropriate Chinese characters by giving long-press of figure keys, example: give long-press of key 1 to choose ou

Bopomofo combinations disappear, start up Lianxiang

Give long-press of key 2 to select "Yang", and have a short-press of figure key again to input Pinyin. Cycle by cycle until satisfied with it

If satisfied, press OK, back to original interface, input content to focus of original interface, ESC-back to original interface and cancel the input content

Registration dialog box:

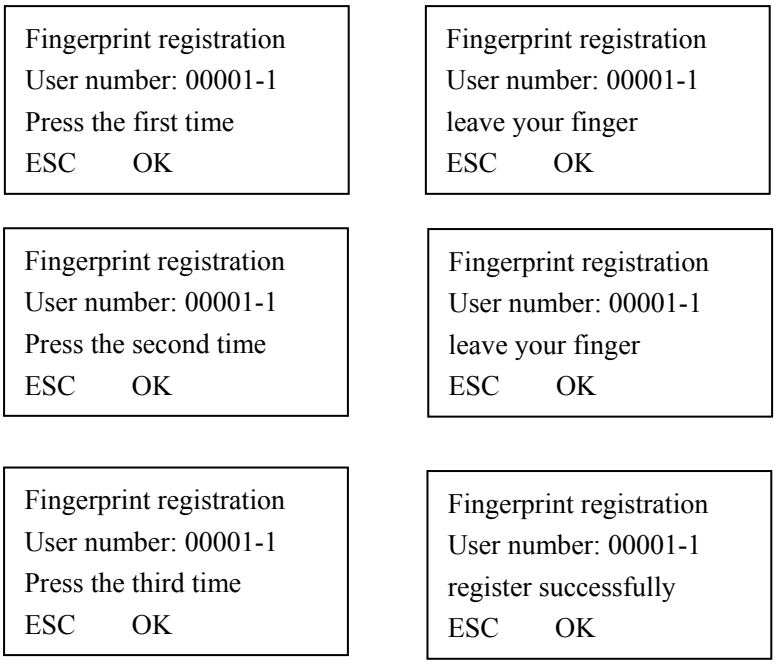
Once identified, enter into the following interface

1. Fingerprint registration
2. Password registration
3. RF card registration
Registered several fingerprints already
After register password, show a “P”
After register RF card, show a “card mark”

4.1.1.1 Fingerprint registration

Fingerprint registration dialog box

Choose **1 Fingerprint registration，** then enter into the following dialog box



Have voice tips at the same time:

“Please press finger…” after succeed, it prompts: “please leave”, show the time 0.8s

Please press finger in the second time …after succeed, it prompts: “please leave”, show the time 0.8s

Please press finger in the third time…after succeed, it prompts: “please leave”, show the time 0.8s

No successful, it prompts: “please press finger again…”

After three times of success, if not repeated, it prompts “successful fingerprint registration”. If repeated, it prompts “fingerprint registration again”.

Repeat tips “please press finger…” cycle by cycle until succeed or cancel

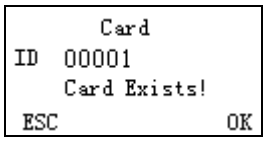
If succeed, press OK to register the next one for this user

4.1.1.2 ID (Mifare) card registration

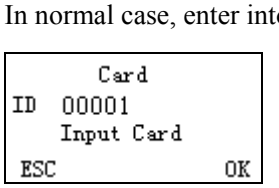
RF card registration dialog box

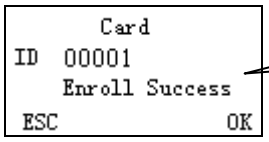
Choose **2 RF card to register,** then may enter into the following dialog box

1, If the RF card has been registered and prompts, "RF card is in existence, whether or not to re-register?" Dialog box is shown as below:



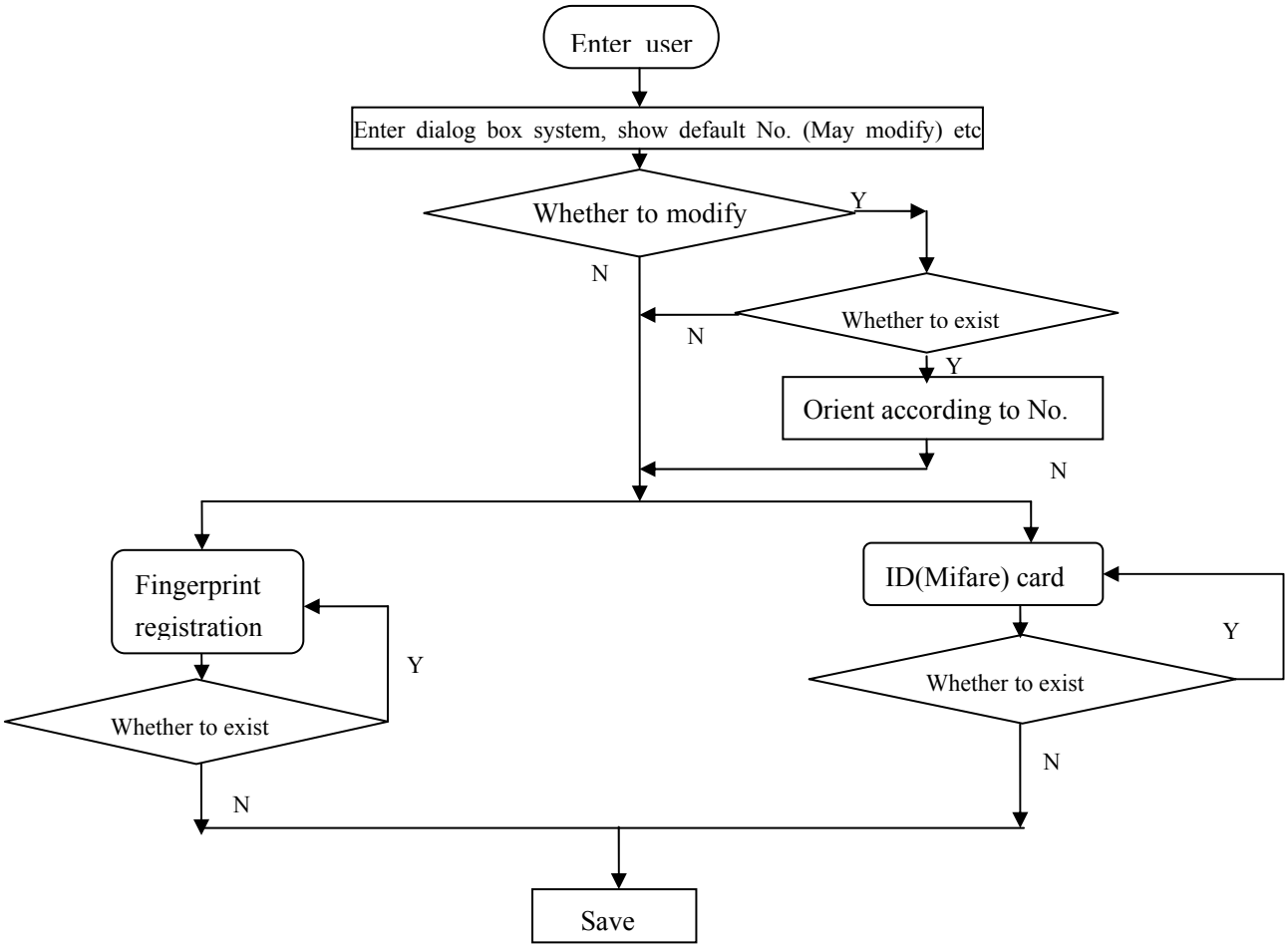
In normal case, enter into the following dialog box directly:





Voice tips:
"Please show card…" after succeed, judge whether or not repeat, if not, prompts "successful registration of RF card", if repeat, prompts "repeat card number, please show card again…" cycle by cycle until reach success or cancel

Registration flow



4.1.1 Deletion of registration recording

Explanation:

1. After entering this menu, firstly prompts to input deleting a user ID

Directly press OK button at this time to delete the selected user information.

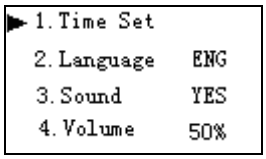
Note:

1. No. 00000 super-administrator can not be deleted
2. The administrator may not delete other administrator, only can delete their own.

4.2 Device settings

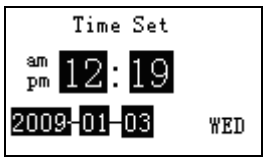
4.2.1Basic settings

There are 5 basic settings

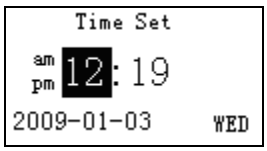


4.2.1.1 Clock settings

When set time, there are 5 focus together, see as follows



May change values of this focus when it fall on some place, here the focus is shown in reverse and in flicker state.



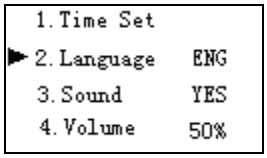
1. Any time focus can only drop into one place, use “up” “down” keys on focus to change values
2. Use “left”, “right”, “OK” for switching focus, ESC—exit time settings
3. Support to display date format of 10 kinds, use “F2” for switching

YYYY-MM-DD、YYYY/MM/DD、MM-DD-YYYY、 MM/DD/YYYY、

DD-MM-YYY 、DD/MM/YYYY、YYYYMMDD，

4. Support to display switch functions of 24 hours and 12 hours, use “F3” for switching

4.2.1.2 Language settings



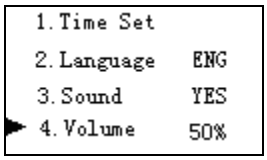
Basic operation method:

Choose OK may enter into settings state (shown as the figure). At this time, you may switch different option by press “up and down arrows” or “left and right keys”. ESC, OK may exit the setting state

Move index to language settings, then set

Explanation: language that is displayed on the screen menu of setting fingerprint machine (voice also should be amended accordingly, but currently do not support).Default simplified Chinese

4.2.1.3 Voice prompts



Move voice tips, then press OK into settings state, use “up and down arrows” or “left and right keys” to switch values. If choose “yes”, there has corresponding voice hint on the device. If choose “no”, only have “DD” buzzer.

The voice document is mp3 or wav format, approximately have:

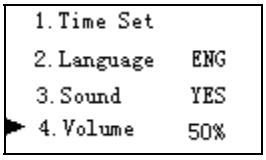
1. Successful verification:

May play if having recorded voice of the user, otherwise play user number hint such as “0001”, the voice of the number must be speech synthesis of real people, prior input 0-9 numerical voice.

2. Failing verification:

“Number absence”, “please press finger again”, “please replay card”, “please input password again”.

4.2.1.4 Volume mediation



Namely regulation of sound volume, from 0 to 100, Settings method is same as above.

4.2.1.5 Keypad tone

If choose “yes”, press key has sound, otherwise not. Settings method is same as above.

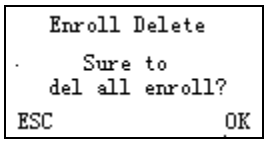
4.2.2 Expert settings

Display this menu only when the super-administrator access to. There are eight

1. Photographing ratio
2. delete all records
3. delete all registered datum

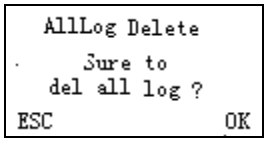
Delete all validating records

Delete all validating records. Require tips to confirm whether or not to delete, see the following figure



Delete all registered datum

Delete all registration records. Require tips to confirm whether or not to delete, see the following figure



After delete all registered datum, there is 0 (a super administrator) only, there are no other registered uses

Restore the factory settings

Restore all settings message to the state of leaving factory (default state). Require tips for operating.

Firmware upgrade

Firmware of the fingerprint can be upgraded through back-stage system or upgrade documents of U disk, require to reconfirm.

Function key settings

Function keys are equal to shortcut keys. Function keys features include: system information watching, overtime registration, off duty registration, work registration, query records, go-off, entering, return, out, overtime work leaving,

belling, alarm etc states.
Default definition state transition of the system F1: work attendance, F2: check back from work, F3: overtime attendance, F4: signed back to overtime work.

Numbers of administrators

Total numbers settings of general administrators and super administrators. Setting range from 1-10

Password of administrator

Her may modify password of super administrator, 0 super administrator may modify his own password here only. Other super administrators may modify here as well as by means of user login mode.

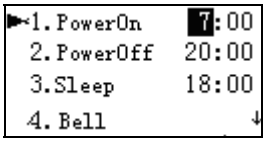
Sensitivity adjuster

Use sensitivity adjuster to adjust parameter of fingerprint head, pitch on sensitivity adjuster, automatically complete by pressing fingerprint

4.2.3 Power supply management

Time starting up

The equipment automatically opens within specified time. (actually the system in resting state physically before starting up)



When move to menu, press OK into setting state, up and down arrows may change values or input values directly. Left and right keys switching focus is hour or minute. OK and ESC may complete settings.

Time power off

The equipment automatically closes within specified time. If you want to start up, require press power supply button or in starting up time. (actually the system in resting state physically before starting up)

Time dormancy

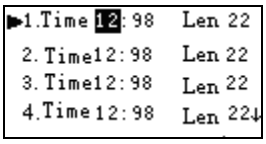
The equipment automatically enters sleep mode within specified time. Press any key to wake-up equipment in working

condition.

The device comes into the resting state automatically, press any key may wake up it to work state

Belling settings

Choose the belling settings, press OK into the next menu



After choose some time sect, press OK into setting state, here are three focuses, the operation method is same as before

Belling Settings include ringing time, music, length. Generally use for factory.

Belling can be set at least 8 kinds of times, you can set up time of timing belling in accordance with the needs, when arrive at the set time, the fingerprint machine will automatically ring, then to reach the length of ringing, it automatically cut-off. If ringing time is 0, the ring is closed. Otherwise, ring according to setting time and length.

Two ringing ways:

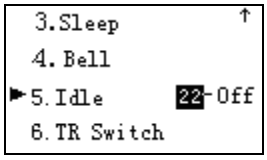
1) from the loudspeaker of machine itself.

2) Connect electric bell with a fingerprint machine, when arrive at the set time, the machine shall send out a relay signal to trigger bells ring.

Free time settings

1. Including transit state choice and free time settings, the two options are interrelated, when the free time to 0, the free setting function is turned off; when the free time is non-0 value (in minutes), such as 1, then if there is no any operation within 1 minute, the system will enter free state of the specified settings

2. Free transition state include: sleep and shutdown

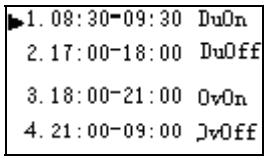


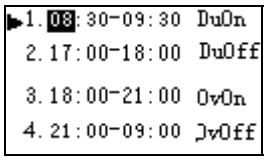
There are 2 focuses when choosing free time settings, set free time and switch states respectively, shown as the figure

Time state transition

State transitions: when use roll machine, it require to keep a record of roll status in different time, after this setting, when arrive time that user set, the machine will automatically convert to the status of rolling. Display the current rolling state in the current rolling interface.

At least include: sign in, sign off, overtime sign in, overtime sign off etc four states and at least six time sects

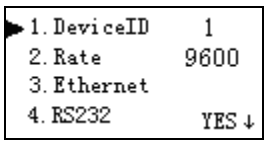




Note:DuOn: working on DuOff: working off
OvOn: overtime signing in OvOff: overtime signing off

1. Each row has 5 focuses, you can use left and right key to switch, up and down arrow may change value or input figure directly

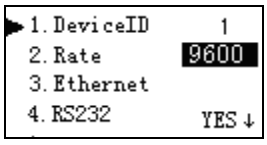
4.2.4 Communication settings



Machine number

Numbers that the machine number to support is 255 at most, suggesting each device correspond one machine number, the value of it is1-255. Differentiate terminal unit by IP or machine number, set machine number here facilitate unified management. User should remember simple machine number only, but not the multifarious IP address.

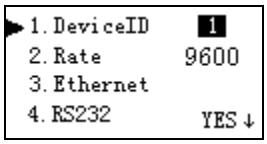
Baud rate



Baud rate means the frequency of the communication of RS232/RS485.
Baud rate have 5 options: 9600、19200、38400、57600、115200. Default 115200

Machine number

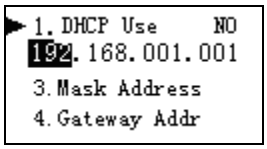
Number that the machine in the LAN, range from 1 to 255



Ethernet network

You should also set the following parameters:
Dynamic IP allocation: “yes” means start dynamic IP functions, then the following IP address shall not be set
IP address： Default IP is 192.168.1.201, adjust in accordance with demands
Subnet mask： Default subnet mask is 255.255.255.0, adjust in accordance with demands
Gateway address： Default gateway address is 192.168.1.1, adjust in accordance with demands

When setting IP address, because of the right vacancy is short, when enter into focus, as the followings.



RS232

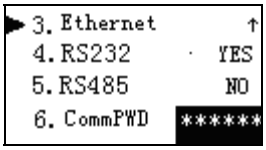
Whether or not to use RS232 for communication

RS485

Whether or not to use RS485 for communication

Connection password

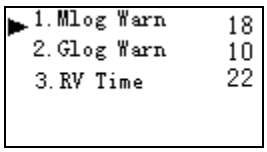
The system default password is 0, that is no password, you can set, if set password, when connect you have to offer a password.



Back-stage address

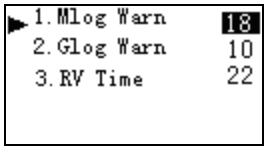
PC back-stage address is the address of upper computer, it can control the host computer of terminal unit, there is need to enter the IP address of this host device

4.2.5 Recording settings



Management recording alarm (alarm)

When the value of remaining management record capacity arrives at setting standard, the equipment will automatically prompt a warning message of remaining record;



Checking recording alarm (alarm)

When the value of remaining record capacity arrives at setting standard, the equipment will automatically prompt a warning message of remaining record;

Repeat affirmed time

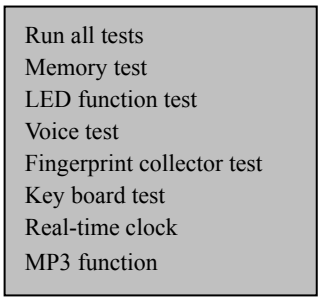
In the set time range (unit: minutes), such as there has existed one person's attendance records, then the second passed checking in result will not be saved.

4.2.6 Automatic detection

Test system components. When equipment fails, it has advantage to analyze failure reason, thus maintain the equipment quickly and easily.

Including testing memory, LCD screen, voice, fingerprint collector, keyboard and the clock, in the testing process, should ensure the stability of power supply, or else they might damage the system hardware, especially during the storage testing process.

Menu is similar with above, no example here:



4.3 Access control function settings

Introduction:

Settings for each user is compose of one sub-group, group time sect and user time sect.

Grouping means assign a group of users to some group, for example, Group 1, Group 2, etc.;

choose three set time sect at most in group time sect, there is "or" relationship among these three time segment(that is, to meet any of the three is ok);

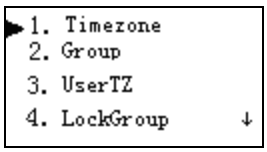
choose three set time sect at most in user time sect, there is "or" relationship among these three time segment; see **"User Access Control settings"** for relationship between the using group time sect and user time sect.

In short, the conditions for registered users to open the lock:,

1: The group that user located must be in the unlocking combination (if you implement unlocking combination settings, it demands verify with personnel of other groups in the same unlocking portfolio, then you can open the lock);

2: the current unlocking time should be in any effective time zone of the user time sect;

System default the new registered user as the first group, and default grouping for the first group, the time sect of default group is "1". In the case of leaving factory state of the Group 1 and time 1, default new registered user is to unlocking state (If users modify the settings related to access control, the system shall change with the diversification by users). If there is no grouping of users in the unlocking combination settings, the user can only check on work and can not unlock.



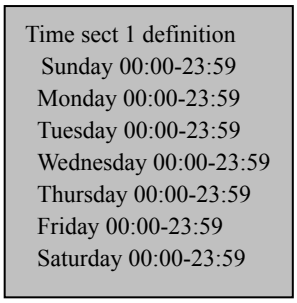
4.3.1 Time sect settings

Defines unlocking time each day in one week, it is the minimum time unit of access control settings. The whole system can define up to 50 time sects one day. Each time sect defines 7 time sects, they are from Monday through Sunday, each interval has effective period of time of 24 hours per day. Each user can set a maximum of three time sects, three sects are "or" relationship, time is effective as long as the verification time is able to meet one of three. The format of each time interval: **HH: MM-HH: MM**, namely accurate to minutes in accordance with the 24-hour system.

The ending time is smaller than the beginning time (23:57 - 23:56) that means the prohibition of the whole day, The ending time is bigger than the beginning time (00:00 - 23:59) that means this sect is effective.

The effective unlocking time for users: open all day (00:00-23:59) or the ending time is bigger than the beginning time in this time sect.

Example 1: the system default time sect 1 for an opening day that means default leaving factory state (that is, new registered users need to unlock).



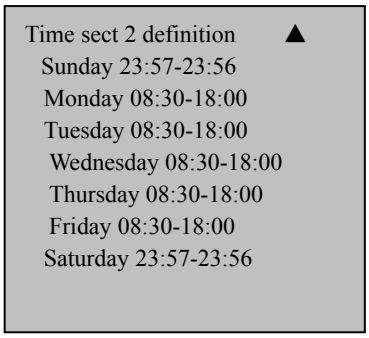
Example 2：

Not allowed to enter on Saturdays and Sundays, these two days have a rest;

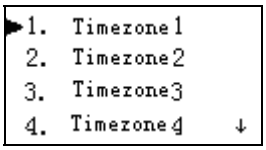
enter from Monday to Friday at working hours

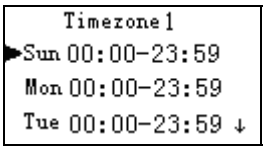
Working hours: 08:30-18: 00;

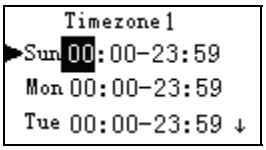
Settings are as follows:



Enter into time sect settings as followings, firstly, choose which time for modifying, then enter into the next menu, each time has 4 focuses







4.3.2 Grouping time settings

Grouping function settings can divide users into several parts, and different groups can be combined into different unlocking combinations in order to facilitate the grouping management of access control. Such groups can be combined as lots of unlocking combinations. System defines 5 groups: group 1, group 2, group 3, group 4, group 5. New registered users belong to group 1 by default, but these users also can be re-assigned to all other groups.

Group time sect settings：Set group unlocking time, choose the completed setting number in **group time sect**.

Default to use time sect of group 1 for new registered user, but when user resets affiliated group, the user uses corresponding group time sect, so firstly it needs to define the default time sect of each group.

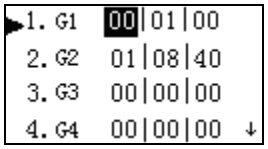
Note：**1** System default group 1

Time sect choose to define number "1".（default unlocking for new registered user）

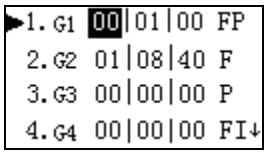
2 The default time sect of group has 1 time sect，may set three time sects at most, the relationship among them is “or”.

Example group 2 settings of default time sect

group2 efficient in time sect :1、8、40 and the group validation mode is fingerprint, it also may choose other defined time sect.



Incorporative menu: take this menu and group validating mode all together. See 10 for explanation



4.3.3 User door contact settings

Set affiliated user group, time sect of the using group, user time sect, validation mode of the using group, personal authentication mode in accordance with needs of the user.

grouping：divide registered users into several parts (according to roles) in order to facilitate management,

time sect of the using group：whether or not to use default time sect of affiliated group by the user,

time sect of users：set time of unlocking, namely choose the set time number,

authentication mode of the using group：Whether or not to use validation mode of affiliated group by the user.

Personal authentication mode：Choose an authentication mode, no other than using group validation mode, the personal validation mode shall effective.

Note：1、the relationship between the time sect of using group and the user time sect

whether or not be effective only on the following **user time sect** in “ **time sect of the using group**” :

1) If the **time sect of the using group** is “yes”, the user time sect shall evaluate as the time sect number of affiliated group automatically(the group time sect should be set firstly). ”

2) if modify **the time sect of users,** the time sect of using group is ‘No” automatically;

2、the relationship between using **group validation mode** and **personal validation mode**

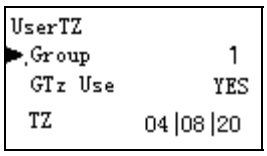
1) If the **group validation mode** is “yes”, the group validation mode is effective, the personal validation mode is invalid

2) If the **group validation mode** is “no”, the user use personal validation mode.

Example: set user 00001 into one group.

User 00001	
Group	1
Time sect of using group	yes
Personal time sect	1 | 8 40
Validation mode of using group	yes
Validation mode	FP

Use the time sect of group 1（here the time number of user shall change into group time number automatically）,
User uses group validation mode, in spite of personal authentication mode is which one, it depend on the group validation mode
Firstly, choose which user it is, enter into this user's settings



4.3.4 Unlocking combination settings

Set different unlocking group combinations, each combination is composed of the different group. The unlocking combination use group number directly, without regard to validation order of every group. Such as " 123" means 1 group, 2 groups, 3 groups, it demands at least one user in each group to validate together that can open the lock, "4" means one user of the single 4 groups passes the validation, then to open the lock.. at one time, the system may define 10 kinds of combinations at most, only one of them can pass is ok.

note：The unlocking combination of initial system default is "1" (Namely, any person in group 1 can open, default the new registered user can open).

Example 1: No setting (leaving factory state), the system default group 1 is unlocking combination 1, others are empty,

Definition of Unlocking combination	
Combination1	1
Combination 2	
Combination 3	
Combination 4	
Combination 5	
Combination 6	
Combination 7	
Combination 8	
Combination 9	
Combination 10	

Example 2：If use certain groups to release lock, set these groups in unlocking combination definition,

Definition of Unlocking combination	
Combination 1	123
Combination 2	4
Combination 3	24
Combination 4	45
Combination 5	15
Combination 6	
Combination 7	
Combination 8	
Combination 9	
Combination 10	

From above scheme setting we can see that all set 5 unlocking combinations,

combination 1：When person of each group (group 1, 2, 3) pass time sect of the user authentication to be effective, the door will open,

combination 2：Only 1 person (person belongs to group 4) be on the scene, the door will open,

combination 3：When person of each group (group 2, 4) pass time sect of the user authentication to be effective, the door will open,

combination 4：When person of each group (group 4, 5) pass time sect of the user authentication to be effective, the door will open,

combination 5：When person of each group (group 1, 5) pass time sect of the user authentication to be effective, the door will open,

To sum up, in unlocking combinations, firstly, staff of each group in portfolio should have the same effective period of time, the door will open.

Explanation：No passing time zone of validation

″ unselected time zone number of user,

″ unselected time zone number of group default time zone（when using group time zone）,

″ the validation time for user does not exist in any setting time zone;

″ define time zone as forbiddance;

Note：if the time zone set by user is not passed:

answer for above combination 2, it appears prompt that user of "Illegal sub-portfolio " can not open lock, but may check on work attendance.（in group 4, there are other users meet unlocking qualification, the combination 2 may open the lock）

Answer for above combination 1,3,4,5, it appears prompt that user of "Illegal sub-portfolio" can not open lock, but may check on work attendance.

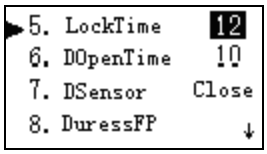
Note：**1.** when set combination 245, no permission for setting combination 24、combination 25、combination 45.

2. If you want to make all registered users can not unlock, set the whole 10 combinations to empty.

4.3.5 Lock drive time

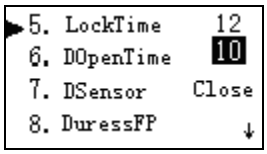
The lock drive time length means time difference between validated time and starting electric lock that after machine validates fingerprint. Take 0.5 seconds for the smallest accurate unit. The Largest set is 5s

set to "0" means to close lock control function.



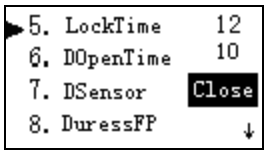
4.3.6 Time delay of door contact

Indicates delay time for inspecting door contact after open the door, namely after delay time to inspect door state (open or close), if there is difference between the door contact state and the set state, it gives an alarm. This time is the time delay of door contact, the unit is "s"



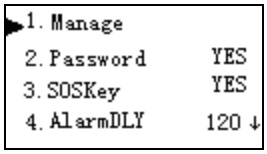
4.3.7 Door contact switch settings

Include three kinds: No, normally opened type, normally closed type;
No: no use of door contact switch;
Normally opened type: if the door is open, the lock should be open, otherwise it shall appear door contact alarm after passing the delay time;
Normally closed type: if the door is closed, the lock should be same, otherwise it shall appear door contact alarm after passing the delay time.

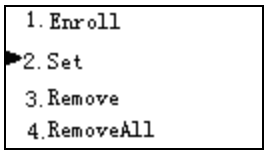


4.3.8 Duress alarm settings

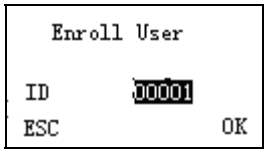
If register duress fingerprint, it shall alarm automatically after passes this fingerprint in order to prevent somebody from compelling to open the door.

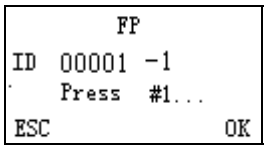


Duress fingerprint management



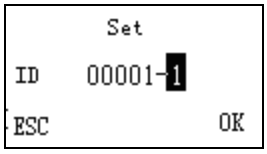
Register duress fingerprint: Register new fingerprint as duress fingerprint

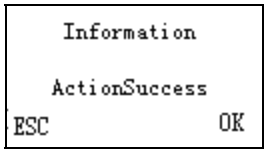




Choose user firstly, then start fingerprint registration flow, shown as above figure

Appointment of duress fingerprint: Change registered fingerprint into duress fingerprint. When choose number, there are 2 focuses for switching, you can choose user' ID and fingerprint's number, use up and down key to change values. OK, left, right button to switch focuses.

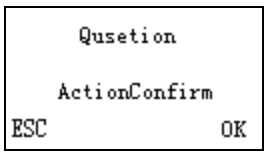




After succeed, display if has user's name, otherwise show number.
For example: "00001-1 set duress fingerprint successfully

Cancel duress fingerprint：Cancel single duress fingerprint

Cancel all：Cancel all duress fingerprints



User specially registers a new fingerprint or appoints a registered one existed in fingerprint machine as duress fingerprint. In any cases, after compare with these fingerprints, it may appear duress alarm.

Password inspection alarm

Open or close such alarm function

Press-key help

If choose "yes" to press-key help, give a long press on"▼" key（ more than 3 seconds）to produce SOS; after press "▼" key(no more than 3 seconds) , then fingerprinting or press ID number, if succeed in identity, it shall appear duress alarm at one time;
If choose "no" to press-key help, give a long press on "▼" key is out of operation.

Alarm delay

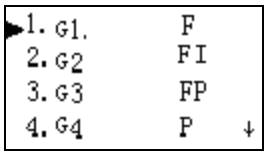
Defines automatic alarm time: after appears duress alarm signal, input alarm signal indirectly, it can be defined, and appear alarm signal automatically in a minute (0-255 seconds).

4.3.9 Wrong press of alarm

Set times of wrong press of alarm: when validation is not passed and the wrong times reach the set value, it shall alarm. 0 is wrong press and have no alarm (infinite and many times), otherwise you may set 1-9 times, default 3 times.

4.3.10 Validation mode

Set validation mode of each group users. Default single fingerprint, there are 6 kinds for opting, you can set five groups all together.



4.3.11 Back function settings

Judge whether or not to back in accordance with the latest in and out records, in and out must be matched. It demands support of host computer and slave (see host computer and slave).

Example：Somebody wants to go out,

⑴ if his latest record is not go in, the machine shall prompt “refuse back” and refuse to open the door.

⑵ if his latest record is go in, he can open the door after authenticate the fingerprint.

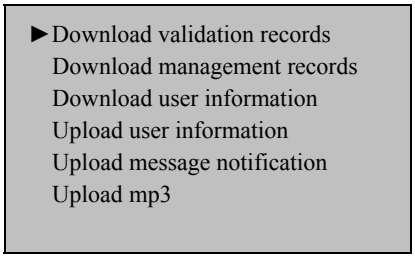
“Back in” and “back in and out” have similar logic.

4.3.12 Binding ID

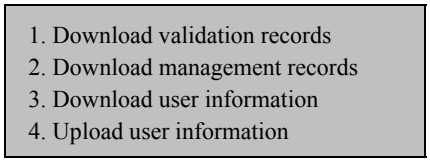
Setting for split machine, binding ID is determined by split machine.

4.4 U disk management

The content includes



The corresponding menus are：



See <particular design series> for uploading the execution of message documents

4.5 Alarm reset

When the machine is not alarm, the menu has no option of alarming, only the machine begin to alarm, option "alarm reset" shall appears in the menu, select the option to lift the current alarm status.

4.6system information

4.6.1 User registered number

4.6.2 Fingerprint registered number

4.6.3 Checking record number

4.6.4 Management record number

4.6.5 Used memory

4.6.6 Residual capacity

Registered user number

Registered fingerprint number

Checking record number

Management record number

Residual memory

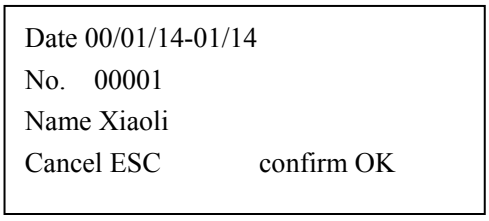
4.6.7 Device Information

Fingerprint capacity
Note capacity
Management record capacity
Memory capacity
Leave factory date
Serial number
Manufacturer
Device name
Device model
Arithmetic version
Firmware version

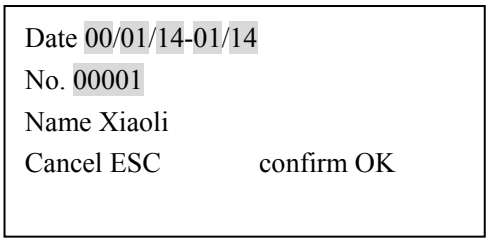
4.7 Query and pivot

Checking recording Query

Support query according to date, number, name. Display in report forms. Switch among various variables and the operation is same as the previous method



Focus schematic diagram, of a total of six, press OK button to query when moved to confirmation.



The query result as follows:

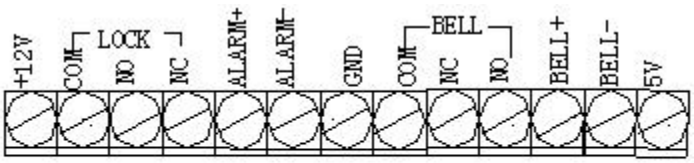
```
1. 2008-01-02 09:10 F
2. 2008-01-02 09:15 R
3. 2008-01-02 09:11 P
4. 2008-01-02 09:11 F
5. 2008-01-02 09:11 F
```

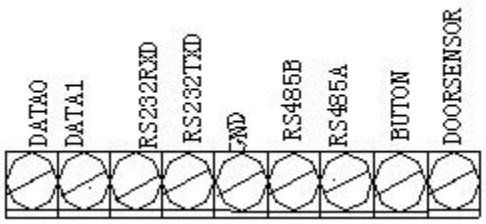
4.7.2 Management recording query

Support query according to date, number, name. Display in report forms, the interface is same as above

5. Connection mode of external port

5.1 Description of external port



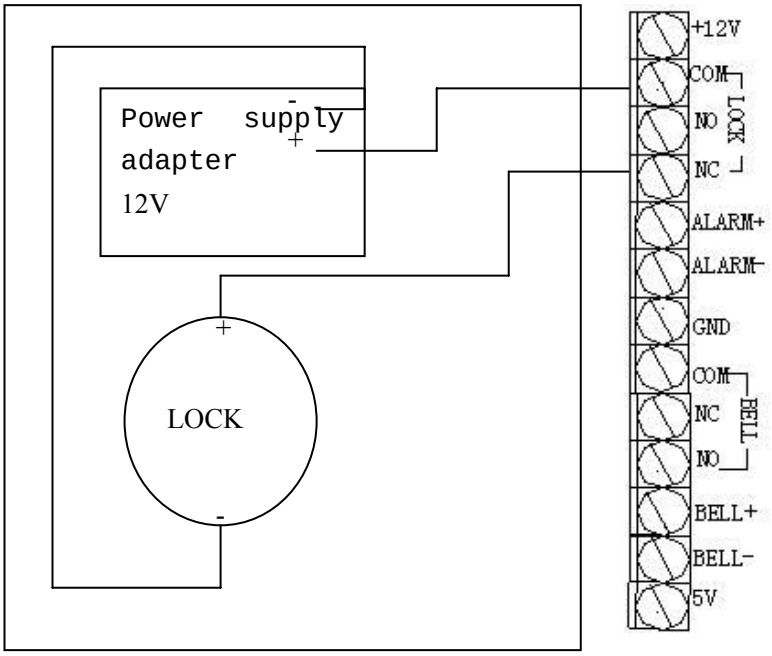


Combination mode of links:

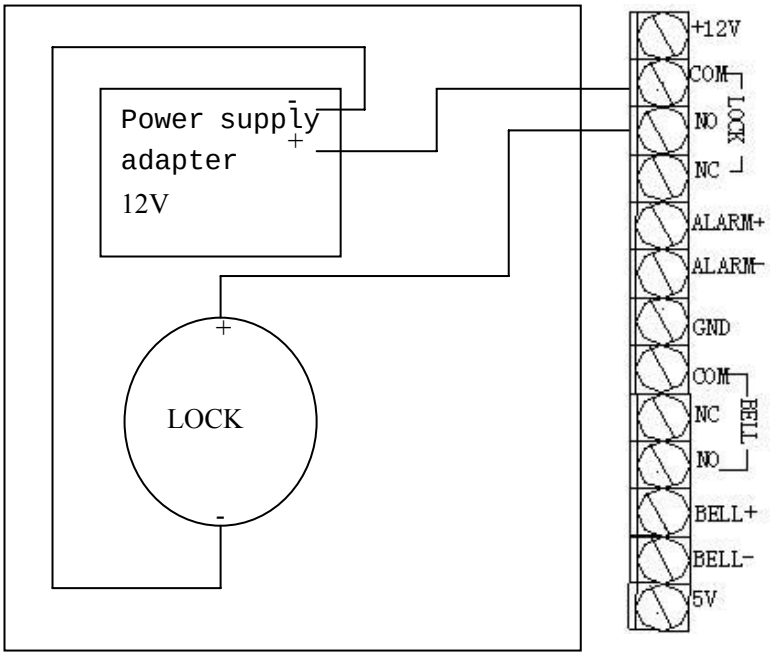
1 RS232 connection method—RS232R、RS232T、GND
2 RS485 connection method—RS485A、RS485B
3 connection mode of Wiegand—GND、DATA0、DATA1
4 connection mode of the bell—BELL-、BELL+
5 connection mode of OUT switch—BUTON、GND
6 connection mode of door contact—DOORSENSOR、GND
7 alarm connection mode—ALARM+、ALARM-
8 connection line of the lock—LK-COM、LK-NO、LK-NC
9 connection line of the bell—BL-COM、BL-NC、BL-NO

5.2 Connection mode of lock and electric bell

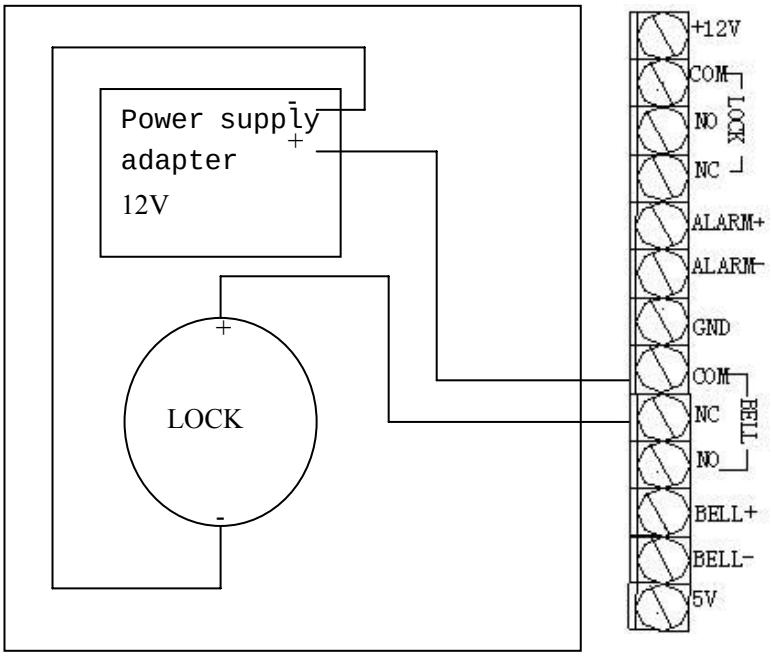
1、connection mode of normally electrified closed lock



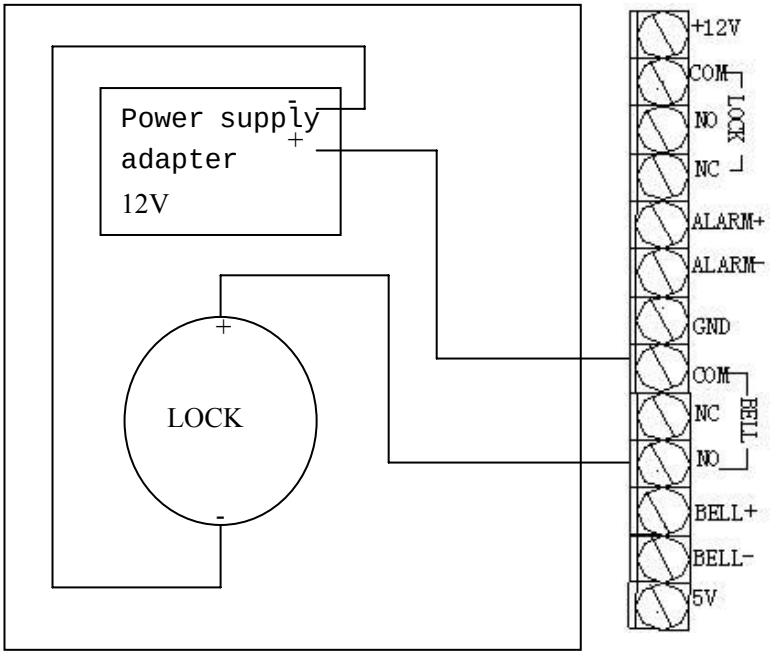
2、connection mode of normally electrified opened lock



3、connection mode of normally electrified closed electric bell

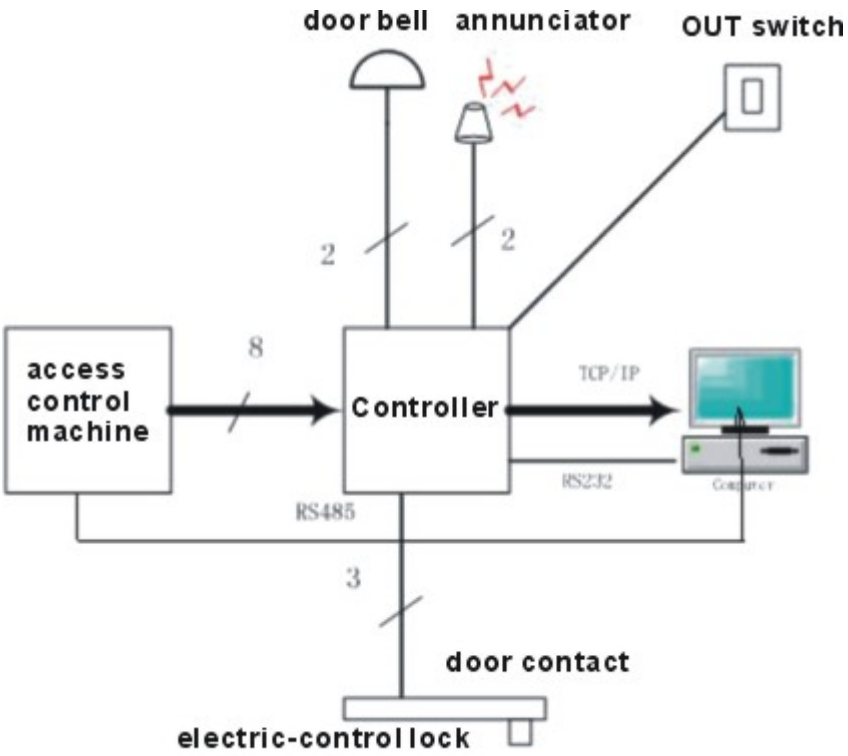


4、connection mode of normally electrified opened electric bell



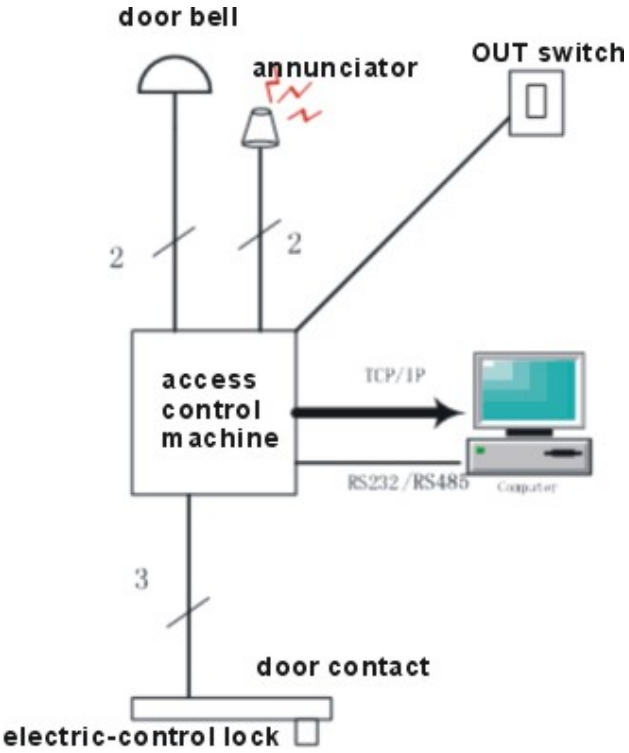
6.Networking mode

6.1Split networking mode

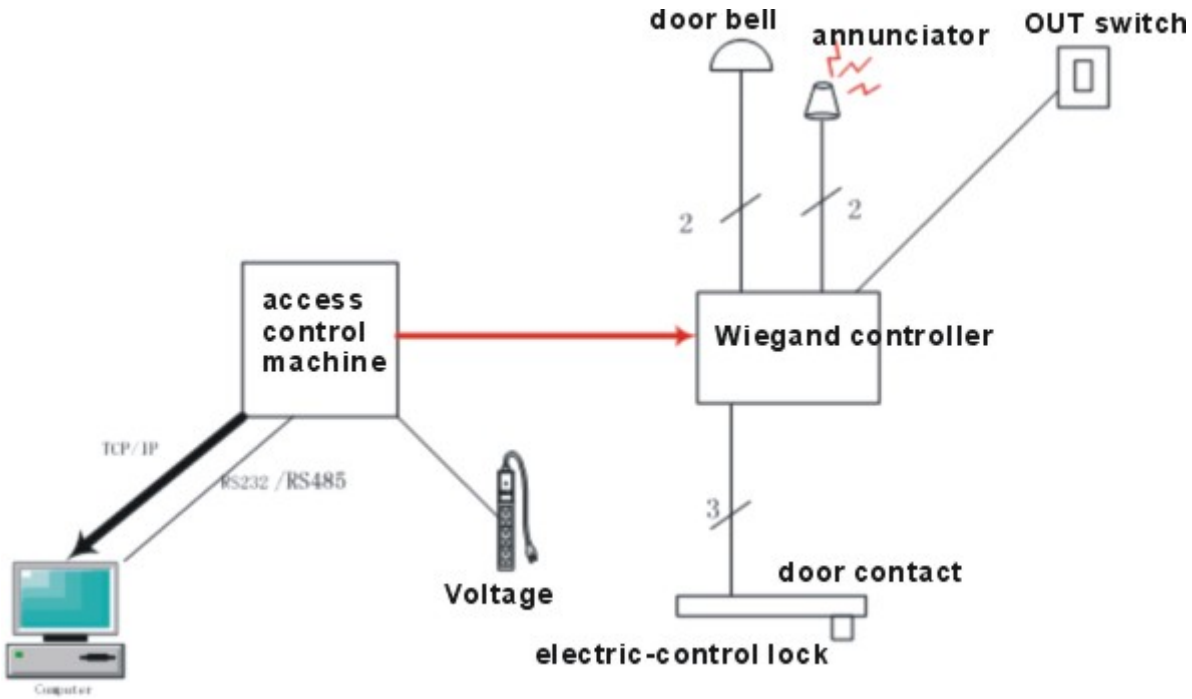


Explanation：Connection mode of extensions, network cable provides with the power supply of terminal unit, the terminal unit need no Power cell

6.2 Networking mode of unity machine



6.3 Networking mode of fingerprint read head



7.Transferring line mode illumination of terminal units network

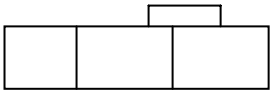
1, Terminal equipment has two transferring line methods, one is split transferring line mode, the other is transferring line mode of unity machine.

2, In split transferring line mode, communicating with upper computer only has two modes, one is TCP / IP, the other is the RS485. Split transfer mode for networking mode of the split. The network connection process in split mode is network input ◊controller ◊terminal unit. RS485 communicates directly with upper computer by terminal unit.

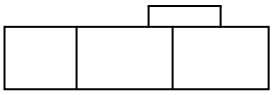
3、the transfer mode of unity machine is used in networking mode of unity machine and Wiegand. In the mode of unity machine, it can communicate with upper computer by TCP/IP、RS485、RS232. When RS485 and RS232communicate with upper computer, RS485 and RS232 can not be used at the same time

4、RS485can communicate with upper computer, at the same time, it can be used on back function. When user uses RS485 on back function, it can not be connected with upper computer.

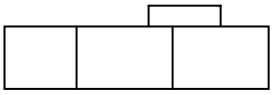
7.1Connection mode chart of split transferring line



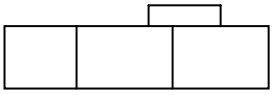
485A/TX+



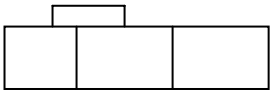
485B/TX-



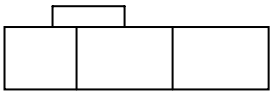
232R/RX+



232T/RX-

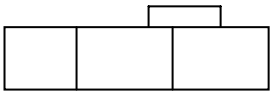


232T/WG1

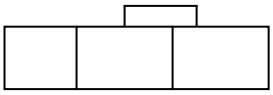


232T/WG0

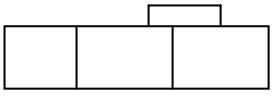
7.2 Connection mode chart of transferring line of unity machine



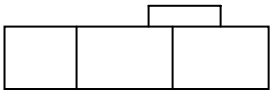
485A/TX+



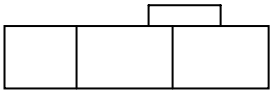
485B/TX-



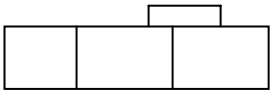
232R/RX+



232T/RX-



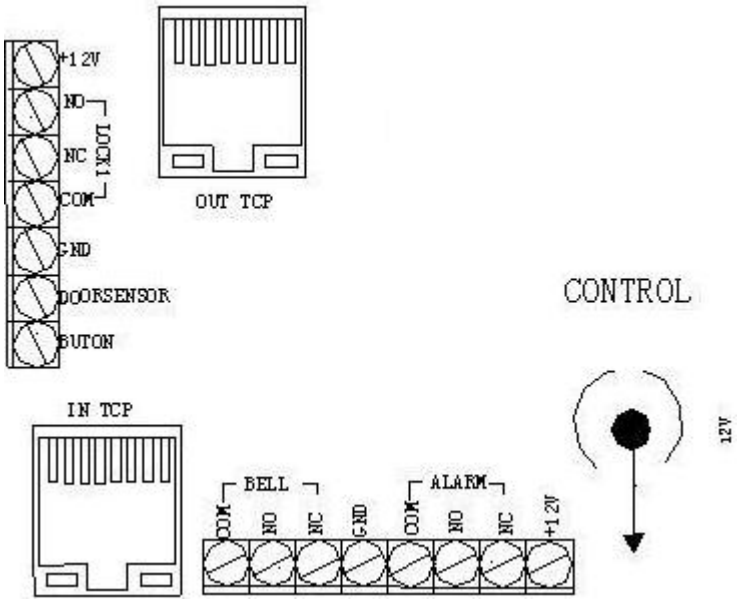
232T/WG1



232T/WG0

8.Instruction of controller

8.1 explanation of controller external port chart



Method combinations of ports

1、 OUT TCP output network cable, this port connects with terminal directly

2、 IN TCP input network cable，this port connects with Router directly

3、 Connection mode of out switch—BUTON、GND

4、 connection mode of door contact—DOORSENSOR、GND

5、 connecting line of alarm—ALARM+、ALARM-

6、 connecting line of electric lock—LK-COM、LK-NO、LK-NC

7、 connecting line of electric bell—BL-COM、BL-NC、BL-NO

note：NO—normally opened connection

NC—normally closed connection

Please refer to 5.2 for the connection mode of electric lock and electric bell